

independent form. By the present Amendment, claims 1 and 12 have been amended and claims 6-8, 10 and 11 have been canceled. It is submitted that no new matter has been added and no new issues have been raised by the present Amendment.

The Office Action rejected claims 1, 5, 6 and 9-12 under 35 U.S.C. §103 over U.S. Patent No. 5,245,361 to Kashimura, et al. in view of U.S. Patent No. 4,931,811 to Cowger et al. Claims 3 and 4 were rejected under 35 U.S.C. §103 as obvious in view of Kashimura, et al. and Cowger, et al. and further in view of U.S. Patent No. 5,138,342 to Kurata et al. Claims 7 and 8 were rejected under 35 U.S.C. §103 as obvious over Kashimura, et al. and Cowger, et al and further in view of U.S. Patent No. 3,708,798 to Hildenbrand et al. Applicant has carefully considered the Examiner's comments and the cited art, and respectfully submits that independent claims 1 and 12 are patentable over the cited art for at least the following reasons.

Independent claim 1 relates to a recording head of an inkjet recording apparatus. A recording head unit includes an ink inlet formed in communication with a passage for receiving ink, the inlet including filter means made from stainless steel mesh for eliminating particles from the ink supplied to the inlet. The recording head unit carries thereon first connection means for connecting the recording head unit to an ink reservoir. The ink reservoir carries thereon second connection means corresponding to the first connection means for connecting the ink reservoir to the recording head unit. The first and second connection means form a detachable engagement with each other. The ink reservoir carries a vent and includes therein a deformable porous material.

Kashimura et al., as understood by Applicant, relates to an arrangement for positioning

an ink jet recording head with “integral ink tank” when the head is mounted to a carriage.

The Office Action indicates that Fig. 17 of Kashimura et al. suggests to one skilled in the art that the reservoir connected to the recording head is removable therefrom.

The Examiner suggests that since the wall portion provided with the opening 312b of the ink tank 312 of Kashimura, et al. is expanded outwardly due to engagement of the projection 311b, one of ordinary skill in the art would consider that since the wall is flexible, the ink tank is detachable from the head by expanding the wall portion outwardly to meet the limitation as claimed.

Applicant respectfully disagrees. As shown in Kashimura, et al., the projection 311b has a wedge-shape that has a tapered surface only at one side. When the head is urged to the ink tank in the direction of arrow A, the tank certainly undergoes an elastic deformation and the projection 311b snap fits to the corresponding opening 312b. On the other hand, once the head and tank are thus engaged, it is no longer possible to separate them from each other by pulling the head in the opposite direction. As understood by Applicants, for the head to be disengageable from the tank, additional or different structure would be necessary. For example, in order to make disengagement possible, it would be necessary to design the shape of the projection 311b to include tapered surfaces on both sides (e.g., an additional tapered surface on the side of the projection opposite to the side having the tapered surface as shown in Fig. 17). Further, the lack of additional structure in Fig. 17 for flexing the ink tank or for compressing the ink head also indicates that the structure was intended to be permanent. However, no such additional or different structure is taught or suggested by Kashimura, et al. with respect to the mounting of the ink tank to the ink head.

This clearly shows that Kashimura totally lacks the concept of claim 1 to form the head and the ink reservoir as being disconnectable. The fact that the projection 311b of Kashimura has a wedge shape defined by a vertical rear surface indicates that Kashimura teaches away from the present invention by disclosing that once the units were joined, they were intended to be joined permanently.

Cowger, et al., as understood by Applicant, provides none of the elements missing from Kashimura, et al. that would have made claim 1 obvious to a person of ordinary skill in the art.

Accordingly, Applicant submits independent claim 1 is patentable over the cited art.

In addition, Applicant submits independent claim 12 is also patentable over the cited art for at least the same reasons as claim 1. That is, Applicant finds no teaching or suggestion of detachably mounting the ink reservoir upon the recording head unit.

Prompt reconsideration and allowance of the present application are respectfully requested.

The Office is hereby authorized to charge any additional fees which may be required in connection with this amendment and to credit any overpayment to our Deposit Account No. 03-3125.

If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our deposit account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Entry of this amendment and allowance of this application are respectfully requested.

Respectfully submitted,



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